L 2754-66
ACCESSION NR: AP5024343

6

laboratory coordinate system. Formulas are derived for the cross section of the process with regard to strong interactions, since this process may be used for studying the electromagnetic structure of the proton. "The authors are very grateful to V. M. Galitskiy for consultation." Orig. art. has: 3 figures, 28 formulas.

44,55

ASSOCIATION: Novosibirskiy gosudarstvennyy universitet (Novosibirsk State University)

44,55

SUBMITTED: 17Mar65 ENCL: 00 SUB CODE: NP, OP

NO REF SOV: 002 OTHER: 002

Card 2/2

L 47364-65 EWT(m)/EWA(m)-2

ACCESSION NR: AP5008755 S/0056/65/048/003/0946/0951

13
11
B

AUTHOR: Bayer, V. N.; Khoze, V. A.

TITLE: Photon emission during muon pair production by electron-positron collision

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 3, 1965, 946-951

TOPIC TAGS: photon emission, muon pair production, electron positron collision, colliding beam experiment, differential cross section, total cross section

ABSTRACT: The paper deals with the emission of a photon in the production of a muon pair by electron-positron collision ($e^+ + e^- \rightarrow \mu^+ + \mu^- + \gamma$). Such processes are expected to be important in the near future in colliding beam experiments. A method is proposed for calculating in a simple manner the total cross section of this process, integrated over the final muon states. The idea of the method is to integrate the separate parts of the diagrams by using the properties of relativistic, gauge, and charge invariants. It is then unnecessary to make the very cumbersome calculation of the differential cross section, since the traces of the electron and muon parts of the diagrams are integrated directly. This is a universal

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method and can be used for the calculation of the cross section for various processes of the same type. The exact formula is then derived for the total cross section of emission of a photon in the production of a muon pair. The formula is then analyzed and the behavior of the cross section determined for two limiting cases, near and far from the threshold. The difference between the behavior of the obtained formulas and those for bremsstrahlung in electron scattering is pointed out. "The authors thank V. M. Galitskiy for a discussion." Orig. art. has: 1 figure and 45 formulas.

ASSOCIATION: Novosibirskiy gosudarstvennyy universitet (Novosibirsk State University)

SUBMITTED: 060ct64 ENCL: 00 SUB CODE: NP

NR REF SOV: 000 OTHER: 003

Card 2/2 CC

L 60322-65 EWT(m)/EWA(m)-2 Peb

ACCESSION NR: AP5016564 UR/0056/65/048/006/1708/1716

24
22
B

AUTHOR: Bayer, V. N.; Khoze, V. A.

TITLE: Radiation in two-particle electron-positron annihilation 19

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 6, 1965, 1708-1716

TOPIC TAGS: electron positron annihilation, photon emission, emission cross section, integral cross section, form factor

ABSTRACT: The authors use a procedure proposed in an earlier paper (ZhETF v. 48, 946, 1965) to calculate the cross sections for the emission of a photon in several annihilation processes. The first process investigated is the formation of a pair of scalar particles upon annihilation of an electron-positron pair. To take into account the influence of strong interactions, form factors of the final particles are introduced and it is shown that by making use of relativistic, gauge, and charge invariance properties, it is possible, by summing over the spins of the final particles, to write down a universal formula for the integral cross section of the emission by the initial particles. To take account of the influence of strong interaction on the emission by the final particles, the contributions of Compton-type diagrams are taken into account. This is done by expanding the am-

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2

plitude of the photon emission in a series and retaining the first two terms. A universal formula is written out for the first term and the method of F. Low (Phys. Rev. v. 110, 974, 1958) is used to calculate the second term. The emission produced upon creation of a pair of pions is calculated as an example. It is shown that in all the cross sections in question the interference term vanishes. "The authors thank V. N. Galitskiy for numerous discussions." Orig. art. has: 2 figures and 58 formulas.

ASSOCIATION: Novosibirskiy gosudarstvennyy universitet (Novosibirsk State University)

SUBMITTED: 11Jan65 ENCL: 00 SUB CODE: NP

NR REF SOV: 003 OTHER: 004

Card 2/2 VLP

L 41742-66 EWT(1)/T LIP(c) AT

ACC NR: AP6020217 SOURCE CODE: UR/0056/66/050/006/1611/1616

76
73
B

AUTHOR: Bayer, V. N.; Fadin, V. S.; Khoze, V. A.

ORG: Novosibirsk State University (Novosibirskiy gosudarstvenny universitet)

TITLE: Emission of two photons in a specified angle during electron collisions

SOURCE: Zh eksper i teor fiz, v. 50, no. 6, 1966, 1611-1616

TOPIC TAGS: photon emission, electron collision, radiation detector, scattering cross section

ABSTRACT: This is a continuation of earlier work by one of the authors (Bayer, with V. M. Galitskiy, ZhETF Pis'ma v. 2, 259, 1965 and earlier) dealing with the emission of two photons of arbitrary energy as a result of electron collisions. In view of the great interest that attaches to this process in connection with colliding-beam experiments, and in view of the fact that earlier calculations were based on the assumption that the angular dimensions of the photon detectors greatly exceed the characteristic emission angle, the authors calculate in this article the cross section for the emission of two photons into a specified angle, which is shown to be only a fraction of the cross section of the radiation integrated over all the angles. The final expression, obtained by a combination of analytic and computer techniques, is in the form of a polynomial in the powers of the frequencies of the two photons. The numerical values of the coefficients of the powers of the frequencies are obtained in the case when the detector dimensions are of the order of magnitude of the characteristic

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ACC NR: AP6020217 3

emission angle. An analytic expression for the cross section is obtained when the detector dimensions are much larger than the characteristic angle. The results of this analytic expression agree well with the numerical calculations. The authors thank A. P. Onuchin for a discussion of questions connected with the experiment, and G. I. Rusova and E. Z. Borovskaya for help with the numerical calculations. Orig. art. has: 1 figure, 14 formulas, and 2 tables.

SUB CODE: 20/ 18/ SUBM DATE: 10Jan66/ ORIG REF: 003/ OTH REF: 001

Card 2/2 10

KHOZEV, Sh.; LEONOVA, T.S., red.; RAKITIN, I.T., tekhn. red.

[For the welfare of everybody]Na blago vsekh. Moskva, Izd-vo "Znanie," 1962. 45 p. (Novoe v zhizni, nauke, tekhnike. V Seriia: Sel'skoe khoziaistvo, no.18)
(MIRA 15:11)

(Stock and stockbreeding)

KHOZEYEV, P. G.

No. 38354--Vtulki perekhodnyye razrezneey dlya instrumentov stsilindrich eskim khvostom. Stanki i instrument, 1949, No.12,s.21.

So: Letopis' Zhurnal'nykk Statey, Vol. 7, 1949.

KHOZEYEV, P.G.

Spindle adapters with a fixed internal cone. Mashinostroitel' no.6:20 Je '62. (MIRA 16:5)
(Chucks)

KHOZEYEV, P.G.

Single-point end cutters. Mashinostroitel' no.1:27 Ja '62.
(MIRA 15:1)

(Metal-cutting tools)

ZUYKOV, F.N., inzhener; KHOZHAINOV, A.I., inzhener.

Using saturation throttles in marine electric drives. Sudostroenie 23 no.2:36-40 F '57. (MLRA 10:5)

(Ship propulsion, Electric)
(Electricity on ships)

KHOZHAINOV, A.I., inzhener.

Method of selecting the horsepower of an induction motor for a capstan drive system regulated by saturation valve. Sudostroenie 23 no.4:26-28 Ap '57. (MLRA 10:5)
(Electric motors, Induction) (Electricity on ships)

8(5) SOV/105-58-11-4/28

AUTHORS: Zuykov, F. N., Khozhainov, A. I. (Leningrad)

TITLE: Construction of Circle Diagrams for an Induction Motor With Biased Reactor Coil (Postroyeniye geometricheskikh mest asinkhronnogo dvigatelya s drosselyami nasyshcheniya)

PERIODICAL: Elektrichestvo, 1958, Nr 11, pp 14-18 (USSR)

ABSTRACT: This is an investigation of the circle diagram of an induction motor with biased reactors in the stator circuit under the condition that voltage and current maintain their sinusoidal shape under all operational conditions. Notwithstanding the circumstance that a precise equivalent circuit diagram is used as a basis of the construction of the circle diagram, it proves to be more expedient to neglect the ohmic resistance of the choke as this does not falsify the results. It is also expedient to add the inductive resistance of the choke $x_{Ch\ i}$ to the inductive resistance of the main stator circuit. Equation (1) is then written down holding for the entire equivalent resistance of the main stator circuit. The procedure of constructing the circle diagram is presented. Generally

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Construction of Circle Diagrams for an Induction Motor With Biased Reactor Coil

the inductive resistance of the choke varies pronouncedly with the slip at a constant bias magnetization. A graphic method of analysis is presented for the determination of the variation of $x_{Ch\ i}$ with the slip s at different values of I_n = const. (I_n denoting the bias magnetization current). The diagram obtained by this way shows that $x_{Ch\ i}$ is independent of s practically only at a very high bias magnetization. In other cases the non-linearity of the choke must be taken into account. The influence of this non-linearity of the choke coil is illustrated by two circuits which correspond to $x_{Ch\ i\ max}$ and $x_{Ch\ i\ min}$, at I_n = const. The circle diagram of the induction motor at different values of $x_{Ch\ i}$ is presented. The vector OA represents the stator current I_1. The parameters characterizing the operation of the induction motor at $x_{Ch\ i}$ = const. are determined from the current circle by the usual methods (Ref 1). The functions describing $I_1 = \varphi(s)$ at different values of I_n = constant which were obtained either by calculation or experimen-

Construction of Circle Diagrams for an Induction Motor With Biased Reactor Coil

tally are compared in a pertaining diagram. It demonstrates that both sets of values show a good agreement. This is also true of the efficiency of the motor as obtained from the circle diagram and by experiment. There are 6 figures and 1 Soviet reference.

SUBMITTED: June 11, 1958

Card 3/3

KHOZHAINOV, A.

A.c. capstan electric drive with a broad range of speed control.
Mor. flot 18 no.11:13-15 N '58. (MIRA 11:12)

1.Nachal'nik laboratorii Vysshego voyenno-morskogo inzhenernogo uchilishcha.
(Capstan) (Electric driving)

KHOZHANINOV, A.I., kand.tekhn.nauk

Method of designing capstan saturation chokes according to electric motor catalog data and the curve of simultaneous magnetization. Sudostroenie 24 no.3:39-42 Mr '58. (MIRA 11:4)
(Electricity on ships) (Electric driving)

KHOZHAINOV, A.I., kand. tekhn. nauk

Static operating cycles of saturated-core reactors in systems of controlled asynchronous drives. Sudostroenie 25 no.6:25-29 Je '59. (MIRA 12:9)
(Electric driving) (Electricity on ships)

S/144/60/000/02/007/019
E194/E155

AUTHOR: Khozhainov, A.I., Candidate of Technical Sciences, Head ~~of the Laboratory~~

TITLE: Construction of the Current Loci of Induction Motors with Non-Linear Inductance in the Stator Circuit

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika, 1960, Nr 2, pp 61-69 (USSR)

ABSTRACT: In the control of induction motors use is frequently made of saturating chokes, auto-transformers and other devices whose reactance is a non-linear function of the motor slip. This influences the operation of the motors and methods of constructing the relevant current loci are required. The present article considers only the most general case of an induction motor with a saturating choke in the stator circuit. It is assumed that the machine winding parameters are constant and that the currents and voltages are sinusoidal. The equivalent circuit of such an induction motor is given in Fig 1. The fundamental equations of the equivalent circuit are then formulated. In the equivalent circuit the magnetising circuit component is brought out to the

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Construction of the Current Loci of Induction Motors with Non-Linear Inductance in the Stator Circuit

supply terminals to facilitate inversion of the functions. Expression (5) is derived for the total equivalent impedance of the main circuit. The influence of the ohmic resistance of the choke on its impedance is negligible and so expression (5) can be simplified to the form of expression (6). Then, once the inductance of the saturating choke is known as a function of slip, the current loci of the induction motor with saturating choke in the stator circuit can, in general, be constructed by combining a number of current circle diagrams into a single diagram. This method gives accurate results but is inconvenient in calculations. It is much easier to obtain the current loci by using the principle of inverting parametric curves. Determination of the inductance of the saturated choke as a function of slip is then considered, using the equivalent circuit of Fig 2, and is found to be an ellipse described by expression (7) in which the major and minor semi-axes are given by expressions (8) and (9). An ellipse may be

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constructed for the various values of slip. A family of ellipses may be plotted on the curve of simultaneous magnetisation of the steel by a.c. and d.c., as in Fig 3. The points of intersection between the ellipses and the magnetisation curves give all the possible operating conditions of the saturating choke. The main case considered is that in which the control circuit is open, so that the main current is constant and the slip is variable. The operating conditions of the saturating choke are then found in the way just described. Fig 4 shows calculated curves of the reactance of the saturating choke as a function of slip for various values of constant main current. The curves relate to a motor type MAP-21-4. It will be seen that it is only when the choke is highly pre-magnetised by d.c. that the reactance is practically independent of the slip and the current diagram is a circle. In other cases, the choke cannot be treated as linear. The method of constructing the loci of an induction motor with non-linear inductance in the stator circuit is then described with reference to the

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Construction of the Current Loci of Induction Motors with Non-Linear Inductance in the Stator Circuit

diagram of Fig 5. An explanation is given of the use of the diagram to obtain currents, torques, power factor and so on. Figs 6 and 7 give current diagram constructions for an induction motor type MAP-21-4, with saturating choke in the stator circuit and main circuit currents of 0.67 amps and 2 amps respectively. Figs 8 and 9 show calculated (1) and experimental (2) curves of primary current and torque as a function of slip, the calculated curves being obtained from the diagrams given in Figs 6 and 7. It will be seen that agreement between theory and experiment is satisfactory.
There are 9 figures and 2 Soviet references.

Card 4/4

ASSOCIATION: Laboratorii korabel'nykh elektroprivodov Vysshego voyenno-morskogo inzhenernogo uchilishcha (Laboratory of Marine Electric Drives, Higher Naval Engineering College)

SUBMITTED: August 8, 1959

KHOZHAINOV, Anatoliy Ivanovich, kand.tekhn.nauk

Use of volt-ampere characteristics of a choke in constructing geometric current plots of asynchronous motors with saturable reactors. Izv. vys. ucheb. zav; elektromekh. 3 no.8:63-68 '60. (MIRA 13:9)

1. Nachal'nik labratorii korabel'nykh elektroprivodov Vysshego Voyenno-morskogo inzhenernogo uchilishcha.
(Electric motors, Induction)

S/057/62/032/001/002/018
B104/B138

AUTHORS: Ryabinin, A. G., and Khozhainov, A. I.

TITLE: Steady laminar flow of electrically conductive liquids in a rectangular pipe under the action of ponderomotive forces

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 1, 1962, 15-21

TEXT: The Navier-Stockes equation and the principal electrodynamic equations for a conductive liquid flowing through a rectangular pipe (Fig. 1) and are reduced to the form $\partial^2 v_z/\partial x^2 + \partial^2 v_z/\partial y^2 - \frac{\sigma}{\eta} B_0^2 v_z + \sigma E_0 B_0/\eta - \partial p/\eta \partial z = 0$. On the strength of experimental results, the electric and magnetic fields are assumed to be uniform for $\vec{v} = 0$ at $b/a \lesssim 1$. The above equation can be written as $\partial^2 v/\partial x^2 + \partial^2 v/\partial y^2 - k^2 v + P = 0$ ($v = v_z$), where $k^2 = 4M^2/b^2$, M is the Hartmann number, and $P = \sigma E_0 B_0/\eta - dp/\eta dz$. The solution to this equation reads

$$v = \frac{b^2 P}{\pi} \sum_{n=1}^{\infty} \frac{(-1)^{n+1}}{(2n-1) M_{0n}^2} \left(1 - \frac{\operatorname{ch} \frac{2x}{b} M_{0n}}{\operatorname{ch} M_{0n}}\right) \cos \frac{2y}{b} (2n-1)\gamma. \quad (15),$$

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B104/B138

Steady laminar flow of ...

where $$M_{*n}^2 = [(2n-1)^2\gamma^2 + M^2];\ \gamma^2 = \frac{\pi^2 b^2}{4a^2}. \qquad (A).$$

This solution can also be generalized for the case of electromagnetic-waves traveling along the pipe axis. It is proved to be unique. The formulas

$$v_{cp.} = \frac{2b^2 P}{\pi^3}\sum_{n=1}^{\infty}\frac{1}{(2n-1)^2 M_{*n}^3}\left(1 - \frac{\operatorname{th} M_{*n}}{M_{*n}}\right),$$

$$\Delta p = \frac{8\eta l P}{\pi^3}\left\{\sum_{n=1}^{\infty}\frac{\operatorname{th} M_{*n}}{(2n-1)^2 M_{*n}} - \gamma^2\sum_{n=1}^{\infty}\left[\frac{\operatorname{th} M_{*n}}{M_{*n}^3} - \frac{1}{M_{*n}^2}\right]\right\}. \qquad (17)\text{-}(18)$$

are obtained for the mean flow velocity and the pressure loss due to friction over the length, l, of the channel. Experimental verification

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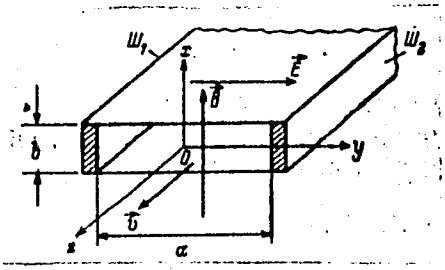
S/057/62/032/001/002/018
B104/B138

Steady laminar flow of ...

with an electromagnetic pump furnished satisfactory results. A saturated NaCl solution was used as the conducting liquid. Experimental results of I. Hartmann et al. (Hg-Dynamics, Danske Videnskab. Selskab. Mat.-fys. Medd., 15, no. 7, 1937) were confirmed for laminar flows using a modified formula for the pressure loss. There are 5 figures and 10 references: 7 Soviet and 3 non-Soviet. The reference to the English-language publication reads as follows: I. A. Shercliff. Proc. of the Cambr. Phil. Soc., 49, 1, 136, 1953.

SUBMITTED: March 27, 1961

Fig. 1. Rectangular pipe.



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RYABININ, A.G.; KHOZHAINOV, A.I.

Steady laminar flow of a conducting fluid in a rectangular tube under the action of ponderomotive forces. Zhur. tekh. fiz. 32 no.1:15-21 Ja '62. (MIRA 15:1)

(Laminar flow) (Hydrodynamics)

44761

S/057/63/033/001/010/017
B125/B186

AUTHORS: Ryabinin, A. G., and Khozhainov, A. I.

TITLE: The turbulent flow of an electrically conducting liquid in tubes of rectangular cross section under the action of electrodynamic ponderomotive forces

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 33, no. 1, 1963, 80 - 89

TEXT: The stability of the turbulent flow of an electrically conducting liquid in a tube of rectangular cross section with arbitrary ratio of the sides a and b, and the loss through frictional resistance, are investigated for a wide range of the numbers M and Re. The parameters of the magnetohydrodynamic current are represented as sums of an average value constant in time and pulsation. After a transformation of the dimensionless hydrodynamic equations one obtains the projections of these equations on the axis of a rectangular tube. Two walls of this tube are nonconducting poles of a magnet. On the other two walls (good conductors) is applied a given potential difference. According to an analysis of these projections the turbulent magnetohydrodynamic currents of an electrically conducting liquid

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The turbulent flow of ...

are characterized by the three dimensionless parameters Re, M and Rm. The structure of this current under the action of electrodynamic ponderomotive forces can be represented as a sum of a linear term for the principal components of the current parameters and a term for the effect of the pulsation. This holds also for the total dimensionless friction coefficients of the turbulent magnetohydrodynamic current: $\lambda^m_{tot} = \lambda^m_{lam} + \lambda^m_{t.p.}$. For $M \to 0$, $\lambda^o_{tot} = \lambda^o_{lam} + \lambda^o_{t.p.}$. Also $\lambda^m_{lam} = k(\gamma, M)/Re$. For $M \gg 1$ and $\gamma \sim 0$, $k(\gamma, M) \cong 4M$ and for $M \sim 1, \gamma \sim 0$, $k(\gamma, M) \simeq 4M$ th $0.5\,M/(1-(\text{th}0.5M/0.5M))$. In the general case $\lambda^m_{t.p.} = \lambda^o_{t.p.}(1-\varphi)$ where $\lambda^o_{t.p.} = \lambda^o_t - k(\gamma)/Re$. Up to $Re = 10^5$ the Blasius law $\lambda^o_t = 0.133/Re^{0.25}$ holds. φ can be obtained from the experimental data with the help of $\varphi = 1 - (\lambda^m_t - \lambda^m_{lam})/\lambda^o_{t.p.}$. The smaller the Re number the more rapidly does φ tend to 1 with increasing M^2/Re. A transverse magnetic field has no effect on $\lambda^o_{lam} = 0.0177$. Therefore the stability condition of the usual hydrodynamic current can be generalized to magnetohydrodynamic currents in rectangular tubes : $Re^m_{crit} = k(\Gamma, M)/0.0177$.

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The turbulent flow of ...

The stability condition $Re^{m}_{crit} = 226M$ for $M \gg 1$ and $\gamma \sim 0$ deviates less than 1% from the experimental relation of W. Murgatroyd (Phil. Mag., 44, 1348, 1953). The generalized total friction coefficient

$$\lambda^{m}_{\gamma} = \frac{k(\gamma, M)}{Re} + \delta(Re - Re^{0}_{sp.})\left[\frac{0.133}{Re^{0.25}} - \frac{A(\gamma)}{1 + \frac{A(\gamma)}{k(\gamma)}(Re - Re^{0}_{sp.})}\right] \times$$

$$\times \left[1 - \frac{M^2}{Re} \cdot \frac{1 + a(Re)\frac{M^2}{Re}}{b_0(Re) + b_1(Re)\frac{M^2}{Re} + a(Re)\left(\frac{M^2}{Re}\right)^2}\right], \quad (39)$$

of a magnetohydrodynamic current asymptotically approaches the law of Blasius from below for small M and from above for large M. There are 4 figures and 2 tables.

SUBMITTED: October 5, 1961 (initially)
March 12, 1962 (after revision)

Card 3/3

KHOZHAINOV, Anatoliy Ivanovich, kand. tekhn. nauk; ZUYKOV, Fedor Nikolayevich, kand. tekhn. nauk

Determination of the permissible number of starts of asynchronous motors with saturable reactors within one hours' time. Izv. vys. ucheb. zav.; elektromekh. 7 no.9:1088-1095 '64 (MIRA 18:1)

L 2475-66 EWT(1)/EWP(m)/EPA(sp)-2/EPA(w)-2/T-2/EWA(m)-2 LJP(c)

ACCESSION NR: AP5024031 UR/0057/65/035/009/1568/1576

53
13

AUTHOR: Khozhainov, A. I. 44,55

TITLE: Experimental investigation of the initial portion of a magnetohydrodynamic channel of square cross section with the longitudinal inhomogeneity of the transverse magnetic field taken into account 44,55

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 9, 1965, 1568-1576

TOPIC TAGS: magnetohydrodynamics, turbulent flow, transient flow, nonhomogeneous magnetic field, homogeneous magnetic field, mercury

ABSTRACT: The author has investigated the flow of mercury in an 8 x 8 mm cross section, 1 m long plastic-walled channel in the 3.5 cm gap between the 29.2 x 10 cm pole pieces of a current-regulated electromagnet, giving particular attention to transition effects in the fringe field as the fluid passes from the field free region to the region of essentially uniform field. The flow was investigated at Reynolds numbers from 2100 to 10,000 and at Hartmann numbers from 5 to 18.7. The flow rate was measured with a Venturi tube and with an electrodynamic flow meter; the pressure was measured at nine points along the channel. Information concerning the velocity profile in the channel was obtained by measuring the potential differ-

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ACCESSION NR: AP5024031

ence between two 0.6 mm diameter amalgamated copper electrodes located diametrically opposite each other in the channel wall. Sixteen pairs of such electrodes were provided. There is a rather long theoretical discussion of such potential difference measurements, from which it is concluded that they can provide useful velocity profile information. The experimental data are presented as plots of the ratio $F = VB_0/V_0B$ against position for different Reynolds and Hartmann numbers; here V is the potential difference between the two electrodes of a pair, B is the magnetic induction, and the subscript o refers to a position near the center of the channel where the magnetic field is uniform. The quantity F varied by some 1 to 7% in passing from the field free region to the center of the channel, depending on the flow conditions. The length L of the transition region was found to be given by $L^2 = a^2R/M^2$, where a is the width (and depth) of the channel, R is the Reynolds number, and M is the Hartmann number. Orig. art. has: 18 formulas and 7 figures. [15]

ASSOCIATION: none

SUBMITTED: 20Jul64 ENCL: 00 SUB CODE: ME, EM

NR REF SOV: 006 OTHER: 006 ATD PRESS: 4105

BVK

Card 2/2

KHOZHAINOV, A.I.

Effect of contact resistance on the readings of magnetic flowmeters. Izm.tekh. no.10:59-61 O '65.
(MIRA 18:12)

L 21713-66 EWT(l)/EWT(m)/EWA(d)/T-2/ETC(m)-6/EWA(l) IJP(c)

ACC NR: AP6004890 SOURCE CODE: UR/0057/66/036/001/0147/0150

AUTHOR: Khozhainov, A. I.

ORG: None

TITLE: Turbulent flow of a liquid metal in magnetohydrodynamic channels of circular section

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 1, 1966, 147-150

TOPIC TAGS: magnetohydrodynamics, turbulent flow, mercury, Reynolds number, Hartman number, transition flow, pipe flow

ABSTRACT: A semi-empirical formula is derived for the flow resistance in turbulent magnetohydrodynamic flow in a channel of circular section as a function of the Hartman and Reynolds numbers. Four experimental points of J.A.Shercliff (Fluid Mech., 1, 644, 1956) obtained in a 6.35 mm diameter channel at Hartman numbers of 79 and 121 are compared with the theoretical formula, and good agreement is shown. Many experimental data of the author on flow resistance at Hartman numbers from 0 to 60 of mercury in a 1 cm diameter tube of circular section with insulating walls in a transverse magnetic field (no further experimental details are given and no reference is made to their publication elsewhere) together with some data of J.Hartman and F.Lazarus (Kgl. Dansko Videnskab. Selskab. Mat.-fys. Medd., 15, 7, 1937) are presented graphically as

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ACC NR: AP6004890

a plot of the logarithm of the flow resistance against the logarithm of the Reynolds number and are discussed briefly. At low and moderate hartman numbers the transition region from laminar to turbulent flow is narrower in tubes of circular section than in tubes of rectangular section. This is ascribed to a specific effect of the corners on the formation of turbulence. Orig. art. has: 10 formulas and 3 figures.

SUB CODE: 20/ SUBM DATE: 09Mar65/ ORIG REF: 004 OTH REF: 005

Card 2/2 ULR

KHOZHAINOV I. I.

KHOZHAINOV, I.I.; FEDOROV, P.S., professor, zaveduyushchiy; BUDYLIN, V.G., professor, direktor.

Surgical therapy in certain forms of enuresis in the presence of spinae bifidae occultae. Vop.neirokhir. 17 no.3:45-47 My-Je '53. (MLRA 6:8)

1. Fakul'tetskaya khirurgicheskaya klinika Stavropol'skogo meditsinskogo instituta (for Fedorov and Khozhainov). 2. Stavropol'skiy meditsinskiy institut (for Budylin).
(Spine--Abnormities and deformities) (Urine--Incontinence)

KHOZHAINOV, I.I.

Treatment of neoplasms of the bladder. Urologiia no.3:10-14 Jl-S '55. (MLRA 8:10)

1. Iz kafedry fakul'tetskoy khirurgii (zav.dotsent I.I.Khozhainov) Stavropol'skogo meditsinskogo instituta (dir. Prof. V.G.Budylin)
(BLADDER, neoplasms
surg. substitute bladder)

KHOZHAINOV, Ivan Ivanovich, for Doctor of Medical Sciences on the basis of dissertation defended 3 Jun 59 in the Council of the Leningrad Pediatric Medical Institute, entitled: "Surgical Treatment of Neoplasms of the Bladder".

(BMVISSO USSR, 2-61, 20)

KL 24, 1959, 148

KHOZHAINOV, I.I. (Stavropol' na Kavkaze, ul.Morozova, d.1, kv.8)

Method of extraperitonization of the bladder in various operations.
Nov.khir.arkh. no.3:46-49 My-Je '59. (MIRA 12:10)

1. Kafedra fakul'tetskoy khirurgii (zav. - dotsent I.I.Khozhainov) Stavropol'skogo meditsinskogo instituta.
(BLADDER--SURGERY)

KHOZHAINOV, I.I.; LAPIN, M.D.

Preoperative preparation and treatment of patients with gastric and duodenal peptic ulcer. Sov.med. 23 no.11:119-123 N '59.
(MIRA 13:3)

1. Iz kafedry fakul'tetskoy khirurgii (zaveduyushchiy - dotsent I.I. Khozhainov) Stavropol'skogo meditsinskogo instituta.
(PEPTIC ULCER surgery)

KHOZHAINOV, I.I., dotsent (Stavropol' na Kavkaze, ul.Morozova, d.1,kv.8); BULYNIN, I.I.; LAPIN, M.D.

Treatment of endarteritis obliterans by subcutaneous administration of novocaine and blood transfusions. Nov. khir. arkh. no.4:79-81 Jl-Ag '60. (MIRA 15:2)

1. Kafedra fakul'tetskoy khirurgii (zav. - dotsent I.I.Khoshainov) Stavropol'skogo meditsinskogo instituta.
(ARTERIES--DISEASES) (INJECTIONS, HYPODERMIC)
(BLOOD--TRANSFUSION) (NOVOCAINE)

KHOZHAINOV, I.I., prof.

Indications for surgery in neoplasms of the urinary bladder.
Uch. zap. Stavr. gos. med. inst. 12:241-242 '63.
(MIRA 17:9)

1. Klinika fakul'tetskoy khirurgii (zav. prof. I.I. Khozhainov) Stavropol'skogo gosudarstvennogo meditsinskogo instituta.

BOGUNOVA, L.S.; VISHNYAKOV, S.G.; KHOZHAINOV, N.P.

Stratigraphy of Carboniferous sediments in the Kursk Magnetic Anomaly. Mat.po geol.i pol.iskop.tsentr.raion.evrop.chasti SSSR no.5:75-82 '62. (MIRA 16:6)
(Kursk Magnetic Anomaly—Geology, Stratigraphic)

VISHNYAKOV, S.G., prof., otv. red.; GRISHCHENKO, M.N., prof., red.; DMITRIYEVSKIY, V.S., dots., red.; LARIONOV, A.K., prof., red.; PLAKSENKO, N.A., dots., red.; TOCHILIN, M.S., prof., red.; PREOBRAZHENSKAYA, V.N., dots., red.; KHOZHAINOV, N.P., dots., red.

[Geology and minerals of central Chernozem provinces; transactions] Geolcgiia i poleznye iskopaemye TSentral'no-Chernozemnykh oblastei; trudy. Voronezh, Izd-vo Voronezhskogo univ., 1964. 334 p. (MIRA 18:2)

1. Mezhoblastnoye geologicheskoye soveshchaniye po geologii i mineral'nym resursam tsentral'nochernozemnykh oblastey, Voronezh, 1962. 2. Voronezhskiy lesotekhnicheskiy institut (for Grishchenko). 3. Voronezhskiy gosudarstvennyy universitet (for Preobrazhenskaya).

KHOZHAINOV, N.P., dotsent; TOCHILIN, M.S., prof.; DMITRIYEVSKIY, V.S., dotsent; CHERNYSHOV, N.I., dotsent; PETRINA, Z.D., predpodavatel'; LAVRENOVA, T.V., assistent; RASKATOV, G.I., dotsent; PREOBRAZHENSKAYA, V.N., dotsent; SHRAMKOVA, G.V., [redacted], dotsent

Savva Gavrilovich Vishniakov, 1897-1964; obituary. Lit. i pol. iskop. no.6:179-180 N-D '64. (MIRA 18:3)

L 52559-65 EWT(1) P1-4 LJP(c)

ACCESSION NR: AT5012666 UR/2539/63/000/044/0119/0124

AUTHOR: Khozhainov, Yu. M.; Bundel', A.A.

TITLE: Influence of the conditions of preparation on the development of the cadmium band in the spectra of cadmium sulfide luminophors

SOURCE: Moscow. Khimiko-tekhnologicheskiy institut, Trudy, no. 44 1963. Issledovaniya v oblasti fizicheskoy khimii, analiticheskoy khimii i elektrokhimii (Research in the field of physical chemistry, analytical chemistry and electrochemistry), 119-124

TOPIC TAGS: spectrophotometry, zinc absorption spectrum, cadmium absorption spectrum, cadmium sulfide analysis, cadmium sulfide luminophor, luminescence spectrum, luminophor roasting

ABSTRACT: The authors present data on the effect of methods of preparation on the development of cadmium and zinc bands in the luminescence spectra of preparations of the composition $ZnS_{95} \cdot CdS_5$. The effect of roasting temperature on the brightness and position of the maximum of the zinc band and cadmium band was investigated in the range of 700 to 1100C. The results are shown in Fig. 1 of the Enclosure. The introduction of a flux (sodium chloride) and an increase in its concentration (up to 4%) increased

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L 52559-65

ACCESSION NR: AT5012666

0

the luminescence yield in both bands, the brightness of the Cd band increasing faster than that of the Zn band. A change in the pressure of gaseous mineralizers (air and sulfur dioxide formed by oxidation of the sulfides) from atmospheric pressure to 0.01-0.05 mm Hg had virtually no effect on the brightness of the zinc band, but decreased the brightness of the cadmium band by almost one-half. Deoxidation and degassing of the initial sulfides from which the luminophors were prepared had no effect on the spectra of the products. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut (Moscow Chemical Engineering Institute)

SUBMITTED: 00 ENCL: 01 SUB CODE: IC,OP

NO REF SOV: 007 OTHER: 004

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L 52559-65

ACCESSION NR: AT5012666 ENCLOSURE: 01

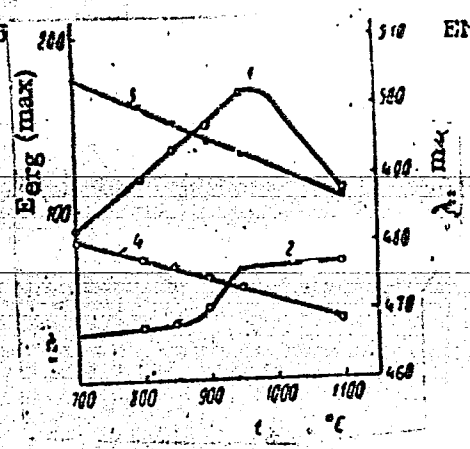

Fig. 1. Influence of roasting temperature on the brightness and position of the maximum of the zinc band and cadmium band in $ZnS_{95}CdS_5$: 1 - brightness of zinc band; 2 - brightness of cadmium band; 3 - position of the Cd band maximum; 4 - position of the Zn band maximum.

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L 17156-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD
ACCESSION NR: AR4049265 S/0081/64/000/015/B015/B015

SOURCE: Ref. zh. Khimiya, Abs. 15B86

AUTHOR: Khozhainov, Yu. M.; Bundel', A.A.

TITLE: A study of the effect of preparative conditions on the growth of the Cd band in spectra of zinc-cadmium -sulfide scintillators

CITED SOURCE: Tr. Mosk. khim.-tekhnol. in-ta im. D.I. Mendeleyeva, vy*p. 44, 1963, 199-224

TOPIC TAGS: zinc cadmium sulfide scintillator, cadmium band intensity, zinc band intensity, scintillator spectrum, flux content, annealing temperature, band luminescence yield

TRANSLATION: The authors demonstrated that two bands, i.e. the zinc band and the band related to introduction of cadmium, are present in the spectra of (Zn_{95}, Cd_5) S-scintillators regardless of manufacturing conditions. It was established that these conditions affect the intensity of both bands in the following manner: an increase in the amount of flux (NaCl) from 0.5 to 4.0% increases the luminescence yield in both

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L 17156-65
ACCESSION NR: AR4049265

bands, with the Cd band growing brighter at a somewhat faster rate than the Zn band; brightness of the Zn band varies according to the same pattern as for spontaneously activated ZnS when the annealing temperature is increased from 700 to 1100C, while the brightness of the Cd band increases sharply only between 850 and 950C . Preliminary deoxidation has little effect on the Zn band, but sharply reduces the brightness of the Cd band. Authors' summary

SUB CODE: IC, OP ENCL: 00

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L 2824-66 EWT(l)/EWT(m)/T/EWP(t)/EWP(b) LJP(c) JD/GG

ACCESSION NR: AP5016174 UR/0051/65/018/006/1019/1023
535.37:548.0

AUTHORS: Khozhainov, Yu. M.; Bundel' A. A.

TITLE: Luminescence of self-activated mixed crystals of the ZnS-CdS series

SOURCE: Optika i spektroskopiya, v. 18, no. 6, 1965, 1019-1023

TOPIC TAGS: zinc compound, optic material, zinc sulfide, cadmium sulfide, luminescent crystal, luminescence spectrum, mixed crystal

ABSTRACT: The article presents a brief summary of the results of investigations made with ZnS-CdS crystals with CdS content from 0 to 50 per cent by weight at -65, +20, and 90C, excited by radiation at wavelengths 365 and 313 nm, and also the phosphorescence spectra one second after the removal of the excitation. The phosphorus were prepared in standard fashion in quartz crucibles. The spectra were measured with a monochromator (UM-2) and a photomultiplier (FEU-19). The phosphorescence was measured with a Wood phosphoroscope. The results

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ACCESSION NR: AP5016174

confirmed the previously suggested (Tr. MKhTI im. Mendeleyeva no. 44, 19, 1963) existence of a cadmium proper band in the spectrum. This band appeared at -65 and +20° at CdS concentrations up to 20 wt. per cent. This band becomes stronger with the increasing CdS content, suppressing the zinc band at 20 per cent content. At larger CdS concentrations the spectra consist of the cadmium band only. Simultaneously with the competition of these bands, the width of the bands increases with increasing CdS concentration and the bands shift towards longer wavelengths. At -195C, two new bands appear in addition. They experience the usual shift with change in crystal composition, and coincide for the pure sulfides with the bands attributed to edge radiation of the lattice. Orig. art. has: 4 figures.

ASSOCIATION: None

SUBMITTED: 13Apr64 ENCL: 00 SUB CODE: OP

NR REF SOV: 006 OTHER: 004

BVK
Card 2/2

KARAPET'YANTS, M.Kh.; KHOZHAINOV, Yu.M.

Application of the methods of comparative evaluation for determining the properties of substances occurring in corresponding states. Temperature dependence of saturated vapor pressure. Trudy MKHTI no.44:10-12 '64. (MIRA 18:1)

OZHIGOV, Ye.P.; KOREN', L.I.; KHOZHAINOVA, L.V.

Obtaining long-lasting trace-element fertilizers (frits) from datolite ores. Izv.Sib.otd.AN SSSR no.1:65-71 '61. (MIRA 14:2)

1. Dal'ne-Vostochnyy filial Sibirskogo otdeleniya AN SSSR.
(Frits) (Datolite)

ACC NR: AP6030116 SOURCE CODE: UR/0421/66/000/004/0114/0117

AUTHOR: Khozhainoy, A. I. (Leningrad)

ORG: none

72
B

TITLE: Steady state flow of a liquid metal in a magnetodydrodynamic channel of rectangular cross section

SOURCE: AN SSSR. Izvestiya. Mekhanika zhidkosti i gaza, no. 4, 1966, 114-117

TOPIC TAGS: magnetohydrodynamics, fluid flow, mercury

ABSTRACT: The article reports the results of an investigation of the effect of a transverse magnetic field on the coefficient of resistance in the flow of mercury in a magnetohydrodynamic channel with a wall ratio of 1:2.5. The experimental magnetohydrodynamic channel was included in a closed circulating system, with distilled mercury. The mercury was set into movement by a mechanical pump, and the flow rate could be regulated within wide limits. The flow rate was recorded with an electromagnetic flowmeter. The pressure in the channel was measured with two-liquid mercury-distilled water manometers. A diagram of the system is shown in Fig. 1.

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L 06067-67

ACC NR: AP6030116

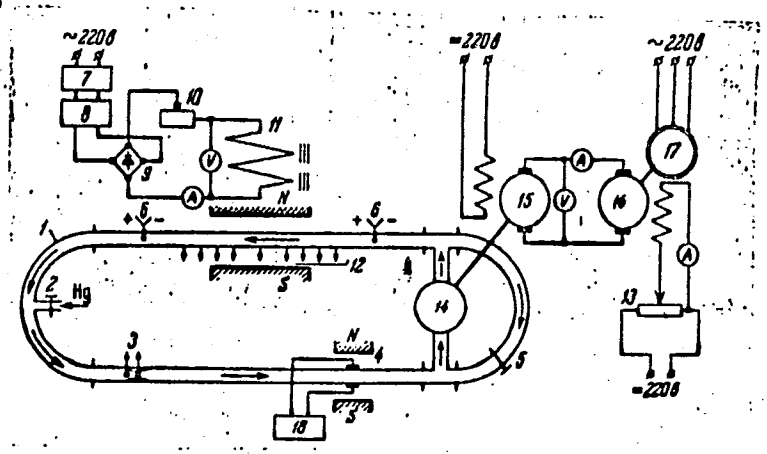

Fig. 1. Scheme of experimental magnetohydrodynamic unit. 1--circulation loop; 2--inlet valve; 3--Venturi tube; 4--electromagnetic flowmeter; 5--throttling damper; 6--thermocouples; 7--voltage stabilizer; 8--laboratory autotransformer; 9--germanium rectifiers; 10--regulating resistance; 11--winding of electromagnet; 12--static pressure fitting; 13--potentionmeter for regulating rate; 14--mechanical pump; 15--direct current motor; 17--generator; 18--asynchronous motor; A and V--ammeter and voltmeter.

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ACC NR: AP6030116 O

The investigations were carried at values of the Hartmann number equal to 6.75, 14.3, 20.5, 27.2, 40.0, and 61.0 in a range of change of the Reynolds number from 1600 to 32,000. A figure shows a plot of the experimental results in the form of the dependence of log $(100 \lambda_{tm})$ on log R. The results indicate that the transition from laminar to turbulent flow in the case under consideration is observed at $\lambda_t \approx 0.0177 = \text{const}$. Orig. art. has: 4 formulas and 2 figures.

SUB CODE: 20/ SUBM DATE: 16Oct64/ ORIG REF: 002/ OTH REF: 006

Card 3/3 egh

KHOZHALOV, S.V., inzhener.

Increasing the productivity of ice plants. Zhel.dor.transp. 37 no.10: 76 O '55. (MLRA 9:1)

(Ice--Manufacture)

KHOZHALOV, S.V., inzhener.

Efficient use of trains having mechanical refrigeration. Zhel.dor. transp. 39 no.2:76 F '57. (MLRA 10:3)
(Refrigerator cars)

KHOZHANAZAROV, K.

United academic session on the development of the productive forces of central Kazakhstan. Vop.ekon. no.3:151-154 Mr '59. (MIRA 12:5)

(Kazakhstan--Economic policy)

KHOZHATELEV, B.L.

Auxiliary apparatus for the MP-3 universal polarising microscope.
Zap.Vses.min.ob-va 83 no.3:272-273 '54. (MLRA 7:11)

1. Tashkent, Institut geologii Akademii nauk UzSSR.
(Polarising microscope)

KHOZHATELEV, B.L.

USSR/Cosmochemistry. Geochemistry. Hydrochemistry. D

Abs Jour : Referat. Zhurnal Khimiya, No 6. 1957. 18940.

Author : B.L. Khozhatelev.
Inst : Academy of Sciences of Uzbek SSR.
Title : To the Lithology of Carbonate and Siliceous Rocks of the Lower Carboniferous in a Section of the Southern Slope of the Chatkal'skiy Range.

Orig Pub : Tr. In-ta Geol. AN UzSSR, 1956, vyp 12, 3-31.

Abstract : The series of carbonate-siliceous sediments is divided into 3 levels in accordance with their composition and structure peculiarities. Dolomites and dolomite containing rocks of an undoubtedly sedimentary origin make up 80% of the total thickness. Limestones are in a subordinate position and, together with silicides, are contained among thick dolomite formations. Homogenous and biogenous silicides stand out among others. The sources of silica have not been determined. It is proposed to distinguish the described series under the name of the "Gavay Strata".

Card 1/1 -53-

AUTHORS: Badalov, S. T., Golovanov, I. M., Khozhatelev, B. L. SOV/20-121-5-36/50

TITLE: A Monticellite Skarn From Central Asia (Monticellitovyy skarn iz Sredney Azii)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 121, Nr 5, pp. 897-900 (USSR)

ABSTRACT: Monticellite, sperrite, and melilite have been known in Central Asia (Srednyaya Aziya) since 1950. The former forms in all known cases both alone and also with the complex of its paragenetic minerals (of the two last-mentioned ones) considerable accumulations of metamorphosed minerals which are bound to the contact zone between eruptive and carbonate rocks. Table 1 shows the physical properties of monticellite from Gavasay (Namangan area, Uzbek SSR = Namanganskaya oblast', Uzbekskaya SSR) and from Almalyk. The latter forms small roundish grains of 0,1 to 1 mm of size, without crystalline shape; the monticellite grains from Gavasay are angular, of irregular shape, up to 0,1 mm of size. Table 2 shows chemical analyses with a conversion to mineral components to-

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gether with comparing data from other sites. The first author took a radiogram in the Radiometric Laboratory of the Institute of Geology of the AS, Uzbek SSR (Institut geologii Akademii nauk UzbSSR). Table 3 shows the results of his interpretation. They confirmed the composition of the mineral as monticellite from Almalyk. Moreover, sperrite is found in the skarn from Gavasay. It forms crystals of 0,05 to 0,1 mm of size, of irregular shape, which develop at the cost of the monticellite grains. The mineral of the melilite group forms small angular crystals which often have an almost square cross-section. The formation of the monticellite-skarn is genetically bound to the contact-zone between eruptive rocks of middle to basic composition and to dolomites (Almalyk) or dolomitized lime (Gavasay). Here, like elsewhere, the process has taken place under the participation of postmagmatic solutions (Ref 6). It follows from table 4 that CO_2-gas escaped during the formation of monticellite skarn and that kieselguhr penetrated into the solution.
There are 4 figures, 1 table, and 12 references, 10 of which are Soviet.

A Monticellite Skarn From Central Asia SOV/20-121-5-36/50

ASSOCIATION: Institut geologii Akademii nauk UzSSR (Institute of Geology, AS Uzbek SSR)

PRESENTED: April 9, 1958, By D. S. Korzhinskiy, Member, Academy of Sciences, USSR

SUBMITTED: April 5, 1958

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S/081/62/000/008/024/057
B160/B101

11.1000

AUTHORS: Kaptel', O. I., Kuznetsov, Ye. L., Khozhaylov, N. K., Chernenko, G. V.

TITLE: Float instrument with ultrasonic positioning of the float, for measuring the density of a liquid under pressure

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 8, 1962, 148, abstract 8Ye12 (Sb. "Primeneniye ul'traakust. k issled. veshchestva". no.14. M., 1961, 323 - 336)

TEXT: The calculations for a float-type instrument for determining the density of a liquid under pressure are given and its sensitivity is indicated. Electrical and ultrasonic methods of positioning the float are discussed. The maximum error in density introduced by the electrical method is $7 \cdot 10^{-5}$ g/cm^3. Calculations are given for an ultrasonic float-positioning method based on the changes in amplitude of a reflected pulse which accompany changes in the orientation of the reflector and crystal planes in relation to each other. The ultrasonic method was checked experimentally. At a frequency of 30 Mc/s the ultrasonic method provides

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S/081/62/000/008/024/057
B160/B101

Float instrument with ultrasonic...

sufficient accuracy in determining the density of a liquid. The instrument was calibrated with mixtures of alcohol and water. Check measurements show the mean arithmetic error in determining density to be about 0.4%. The results of measuring the densities of petroleum in strata of the Chubovka deposit at pressures of 35-300 atm are given. The petroleum's coefficient of compressibility is $6 \cdot 10^5$ g/cm^{2}atm. [Abstracter's note: Complete translation.]

Card 2/2

CHERCHENKO, G.V.; KAPTEL', O.I.; KUZNETSOV, Ye.L.; KHOZHAYLOV, N.K.

Measuring the density of formation oils. Trudy Giprovostoknefti no.3:338-352 '61. (MIRA 14:12)

(Petroleum--Density)

KAPTEL', O.I.; KUZNETSOV, Ye.L.; KHOZHAYLOV, N.K.; CHERCHENKO, G.V.

Float-type device for measuring the density of pressurized liquids using the ultrasonic method for fixing the position of the float. Prim. ul'traakust. k issl. veshch. no.14:323-336 '61. (MIRA 14:12)
(Ultrasonic waves--Industrial applications)
(Sound--Apparatus)

L 3620-66 EWT(1)/FS(v)-3 DD

ACCESSION NR: AP5023673 UR/0219/65/060/009/0038/0042
616-036.882-591.543.42+616-036.882-08

41
39
B

AUTHOR: Andzhus, R.; Khozich, N.

TITLE: The duration limits of reversible clinical death for some hibernating and nonhibernating animals with a body temperature of 0C and the possibility of artificially prolonging this state

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny, v. 60, no. 9, 1965, 38-42

TOPIC TAGS: animal physiology, hypercapnia, hypoxia, hypothermia, rat, clinical death, microwave diathermy, suslik, hibernation

ABSTRACT: Improved methods of reviving animals cooled to a rectal temperature of 0C are demonstrated. In addition, the duration of clinical death during deep hypothermia was investigated, and artificial means of prolonging reversible clinical death were studied. Unanesthetized white rats were cooled in three stages: 1) in a hermetically sealed vessel with a temperature of 0—5C; 2) in an ice bath; and 3) in a propylene glycol or glycerine solution with a temperature below zero. Clinical death sets in at a body temperature of 10C. Revival was begun with simultaneous microwave diathermy (localized in the pericardiac region) and artificial

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ACCESSION NR: AP5023673

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respiration (blowing air through the nostrils). When cardiac and respiratory activity resumed (at 15C), animals were placed in a warm bath (40C). Finally, animals were placed in a thermochamber (32C) because their temperature-regulating mechanisms remain disturbed for a few hours or days after revival. Comparative experiments were conducted with nonhibernating animals (rats) and hibernating animals (susliks) to determine the limits of reversible clinical death. Results showed that 100 percent of the rats could be completely revived if the period of clinical death did not exceed 60—70 min. When circulation had been stopped for 2 hr, none of the animals could be completely revived. It was found that susliks can endure a significantly longer period of clinical death: 100 percent of the animals survived 3 hr, and 50 percent survived 5 1/2 hr. It is postulated that only hibernating animals can withstand 3 hr or more of clinical death, with the understanding that they must be artificially revived. While hibernators are in a state of normal activity, they tend to resist clinical death better than nonhibernators, but their resistance during hibernation, as shown in previous experiments by the authors, is less than that of cooled nonhibernators. In an attempt to prolong the duration of reversible clinical death, rats were subjected to 5—7 preliminary coolings to QC with 6-day intervals. About one-third of the group could withstand 2 hr of clinical death. Susliks cooled 4 times with 6-day intervals could survive 7 hr of clinical death, the longest period the authors

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ACCESSION NR: AP5023673 2

achieved for any mammals. It is interesting to note that preliminary conditioning of rats to hypoxia did not increase resistance to clinical death. The adaptation mechanism which increases resistance to clinical death is unclear and will be the subject of further study. Orig. art. has: 4 figures. [JS]

ASSOCIATION: Yestestvenno-matematicheskiy fakul'tet Instituta fiziologii (Department of Mathematics and Natural Sciences, Institute of Physiology) Biologicheskiy institut, Belgrad (Institute of Biology)

SUBMITTED: 21Nov64 ENCL: 00 SUB CODE: LS

NO REF SOV: 000 OTHER: 005 ATD PRESS: 4114

Card 3/3

ANDZHUS, R.; KHOZICH, N.; CHIRKOVICH, T.

Some characteristics of metabolism in cerebral tissues during clinical death in deep hypothermia in some hibernating and non-hibernating animals. Biul. eksp. biol. i med. 60 no. 10:73-76 O '65. (MIRA 19:1)

1. Institut fiziologii yestestvenno-matematicheskogo fakul'teta Belgradskogo universiteta i biologicheskiy institut, Belgrad. Submitted November 21, 1964.

L 11628-66

ACC NR: AP6001978 SOURCE CODE: UR/0219/65/060/012/0082/0085

AUTHOR: Andzhus, R.; Khozich, N.

33
B

ORG: Physiology Institute of the Natural Mathematics Division (Institut fiziologii yestestvennogo-matematicheskogo fakul'teta); Biological Institute, Belgrad (Biologicheskiy institut)

TITLE: Temperature limits for clinical death reanimation in certain hibernating and nonhibernating animals under deep hypothermia

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny, v. 60, no. 12, 1965, 82-85

TOPIC TAGS: anabiosis, experiment animal, temperature adaptation, hypothermia, supercooling

ABSTRACT: Experiments were conducted on rats, mice, and susliks (gophers) to determine the lowest body temperatures at which reanimation from clinical death is possible. Deep hypothermia below 0C without freezing (crystallization) of organs was induced by immersing clinically dead animals, cooled earlier to 0C, into 50% glycerine or propylene glycol solutions and cooling the solutions until body temperatures dropped to -6 or -7C. Below this point freezing takes place, and a characteristic sharp rise of rectal temperature is

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UDC: 617-001.18-036.882-08-092.9

L 11628-66
ACC NR: AP6001978

6

observed as a result of latent heat released by crystallization. Reanimation techniques used are described in earlier studies. Findings show that the lowest temperature for clinical death is about -7C at which point complete supercooling is achieved. However, temperatures below 0C, especially in the case of susliks, do not prolong the period of reversible clinical death and even shorten it. The longest period of supercooling followed by successful reanimation was 40 minutes in an adult rat. The longest period of clinical death with complete supercooling to -5C was 1 hr for susliks. The authors conclude that reduction of body temperatures below 0C, despite the absence of the irreversible crystallization effect, does not prolong the period of reversible clinical death. Orig. art. has: 4 figures. [06]

SUB CODE: 06/ SUBM DATE: 21Nov64/ ORIG REF: 002/ OTH REF: 003

ATD PRESS: 4177

Card 2/2

BOL'SHINSKIY, M.I., inzh.; KHOZIN, A.V., inzh.; CHERKASOV, V.F., inzh.

Using PML-5 rock loaders during the mining of inclined workings. Shakht. stroi. 7 no.12:25 D'63. (MIRA 17:5)

1. Stroitel'noye upravleniye No.6 tresta Donetskshakhtostroy.

KHOZIN, G., kapitan

Space is open for all. Av. i kosm. 48 no.11:33-35 N '65. (MIRA 18:10)

KHOZIN, G., kapitan

Universe speaks. Av. i kosm. 48 no.12:20-25 D '65.
(MIRA 18:11)

1. Spetsial'nyy korrespondent zhurnala "Aviatsiya i kosmonavtika".

L 19860-65 EEO-2/EWG(j)/FSF(h)/FSS-2/EWG(r)/FS(s)/FS(v)-3/EEC(k)-2/
EWG(v)/EWA(d)/EEC(t)/EWG(a)/EWG(c)/EWT(l) Po-4/Pe-5/Pq-4/Pac-4/Pae-2/
Pi-4 AEDC(b)/SSD/AFWL/ASD(s)/AFMD(t)/AFETR/AFTC(a)/ESD(si)/ESD(t)
ACCESSION NR AM5001719 BOOK EXPLOITATION TT/MLK/GW S/

Rebrov, Mikhail Fedorovich; Khozin, Grigoriy Sergeyevich

The moon awaits us (Nas Zhdet Luna), Moscow, Izd-vo "Sovetskaya Rossiya", 1964, 179 p. illus., biblio. 50,000 copies printed.

TOPIC TAGS: moon, lunar flight, rocket engine

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722310020-4"

L 19860-65
ACCESSION NR AM5001719

SUB CODE: SV, PR SUBMITTED: 04Feb64 NR REF SOV: 013

OTHER: 000

Card 2/2

PETROV, Vitaliy Nikolayevich; KHOZIN, Grigoriy Sergeyevich; FAYNBOYM, I.B., red.

[Radio communication in outer space] Kosmicheskaia radiosviaz'. Moskva, Izd-vo "Znanie," 1964. 43 p. (Novoe v zhizni, nauke, tekhnike. IX Seriia: Fizika, matematika, astronomiia, no.13) (MIRA 17:7)

SCAN/66/929

22 April 1966

TITLE: Soviet Lunar Probes

SOURCE: Khozin, G. Znaniye-sila (USSR), no. 3, 1966, p. 4 (Summary)

In a brief article reviewing the achievements of Soviet lunar probes designated "Luna-1" (also known as "Mechta"), "Luna-2," "Luna-3," "Zond-3," and "Luna-9," it is stated that in the near future automatic lunar modules with acute "hearing," "sense of touch," and even "taste" and "sense of smell," will explore the moon. After investigating the lunar surface, they will furnish data on the fluctuations of the soil, measure the magnetic field and the degree of rarefaction of the lunar atmosphere. Samples will be taken, and the onboard equipment will perform chemical and mineral analyses.

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L 15403-66 EWT(d)/FSS-2/EWT(1)/FS(v)-3/EEC(k)-2/EWA(d) AST/GW
ACC NR: AP6000623 SOURCE CODE: UR/0209/65/000/012/0020/0025

AUTHOR: Khozin, G. (Captain, Special journal correspondent)

ORG: None

TITLE: This is the universe speaking: A report from the long-range space communication center

SOURCE: Aviatsiya i kosmonavtika, no. 12, 1965, 20-25

TOPIC TAGS: space communication, communication system, venus probe/zond 3, venus 2, venus 3

ABSTRACT: This is a general discussion of the Long-Range Space Communication Center. The principal mission of this center is the tracking and guidance of Soviet-launched deep-space probes; particular mention is made of radio command links to the "Zond-3," "Venus-2" and "Venus-3" missions. Certain of the more important personalities (chief engineers, facility and systems designers, etc.) associated with the installation are introduced, and most of the article is given in the form of a dialogue with these personages. Some attention is given to the antenna arrays used at the center, but few technical details are given. It is mentioned that in order to reduce the noise level the reception equipment is
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L 15403-66

ACC NR: AP6000623

located in the immediate vicinity of the antenna reflectors. Propogation times and anticipated delays in signal return from various celestial bodies are discussed briefly. No specific mention is made of the center.

SUB CODE: 17, 22 / SUBM DATE: none

Card 2/2

L 2[illegible]-66 FBD/FSS-2/EWT(1) TT/ENS/GW

ACC NR: AP6011060 SOURCE CODE: UR/0004/66/000/003/0004/0004

66
13

AUTHOR: Khozin, G.

ORG: none

TITLE: To the eternal satellite

SOURCE: Znaniye - sila, no. 3, 1966, 4

TOPIC TAGS: lunar probe, [redacted], moon, lunar mission, lunar surface, selenography, lunar seismology, [redacted], lunar topography

ABSTRACT: The article briefly reviews the historical background of theories and studies of selenography and discusses the achievements and results of Soviet lunar probes of the "Luna" series, with particular emphasis on Luna-9 and its photographic mission. It is stated that in the near future, automatic lunar modules with acute senses of "hearing", "touch", "taste" and even "smell", will explore the moon. After investigating the lunar surface, they will furnish data on soil vibration, the magnetic field, and the degree of rarefaction of the lunar atmosphere. Samples will be taken, and the onboard equipment will perform chemical and mineral analyses. In time, astronomical observatories will be built on the moon for the astronomers as a base beyond the atmosphere. [WH]

SUB CODE: 22,03/SUBM DATE: none/

Card 1/1

KHOZINSKAYA, A., kand.tekhn.nauk

Emulsifiers for acid bituminous emulsions. Zhil.-kom. khoz. 10 no.8:34 '60. (MIRA 13:9)
(Emulsions) (Bituminous materials)

KHOZINSKAYA, A.G., kand.sel'skokhoz.nauk [deceased]

Effect of the transfusion of hemolymph on the transmission of characters and properties in the mulberry silkworm. Agrobiologiia no. 3:457-459 My-Je '64. (MIRA 17:7)

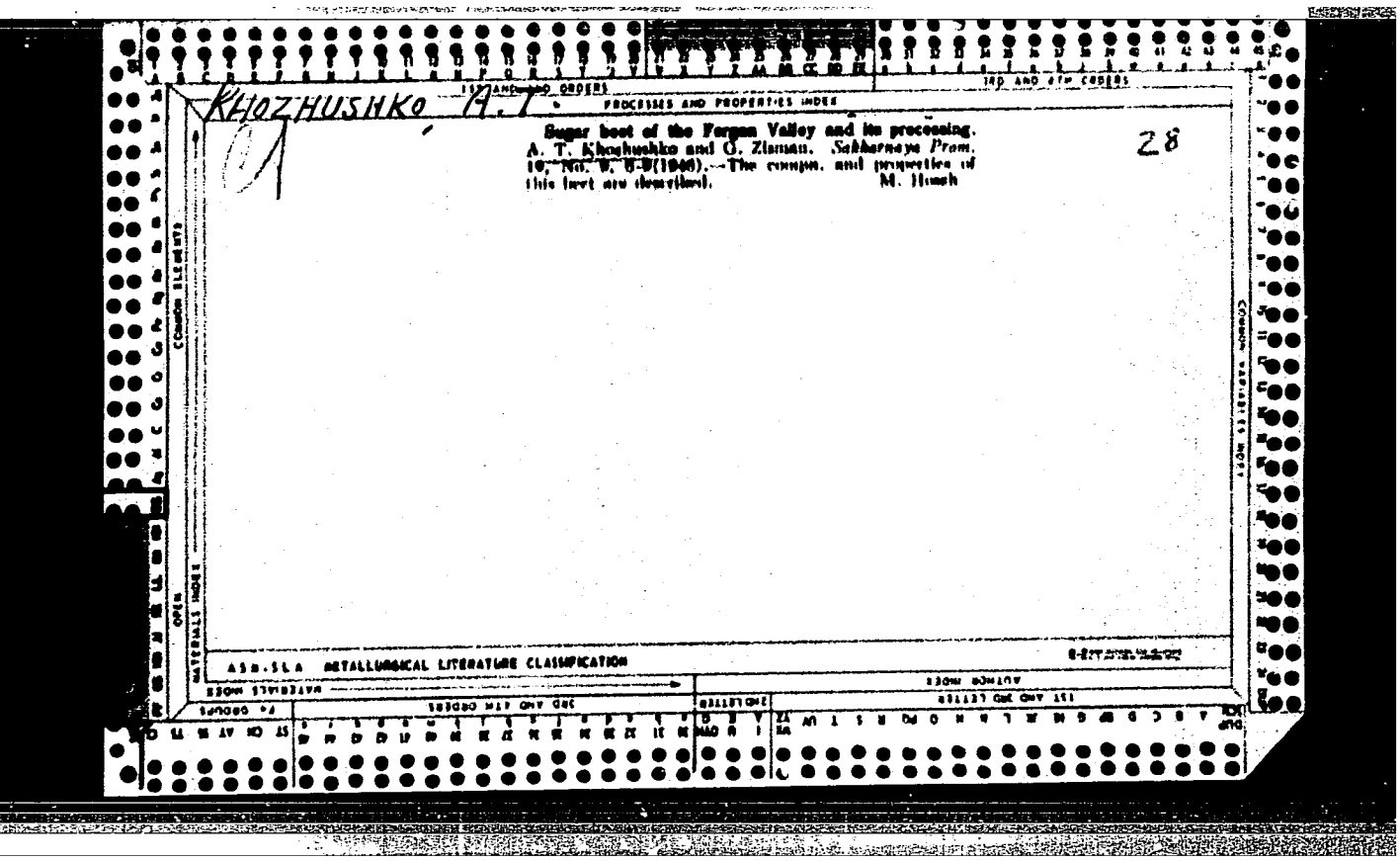
1. Sredneaziatskiy nauchno-issledovatel'skiy institut shelkovodstva, Tashkent.

KHOZHINSKAYA, G. N.

4

1308* (Problem of the Reaction of Reagents With Zinc Blende.) K voprosu o vzaimodeistvii reagentov s tsinkovoi obmankoi. I. N. Plaksin and G. N. Khozhinskaia. *Doklady Akademii Nauk* SSSR, v. 97, no. 6, Aug. 21, 1954, p. 1045-1048.

Effect of lime on absorption of ethyl xanthogenate by ZnS. Flotation with and without activation by blue vitriol. Effect of Fe impurities. 3 ref.



KHOZHUSHKO A.T.

Sugar beet of the Fergan Valley and its processing.
A. T. Khozhushko and G. Zisman. *Sakharnaya Prom.* 10, No. 9, 8-9(1936).—The compn. and properties of this beet are described. M. Hirsh

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A58-51A METALLURGICAL LITERATURE CLASSIFICATION

KHOZINSKAYA, O. V.

VINITSKIY, L. YE., Kand. Tekhn Nauk i GUREVICH, L. V., Kand. Tekhn. nauk i KHOZINSKAYA, O. V., O. St. Nauchn. Sotr.
Akademiya kommunal'nogo zhosyaystva im. K. D. Pamfilova.

RAZDELITEL'NYYE I NAZEMNYYE ZNAKI IZ TSVETNYKH ISKUSSTVENNYKH MATERIALOV.

page 90

SO: Collection of Annotations of Scientific Research Work on Construction, completed in 1950, Moscow, 1951

42418

S/048/62/026/011/010/021
B125/B102

AUTHORS: Arifov, U. A., Rakhimov, R. R., and Khozinskiy, O. V.

TITLE: Electron emission from metals when bombarded by certain inert gas ions in the energy range up to 50 kev

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya, fizicheskaya, v. 26, no. 11, 1962, 1398 - 1403

TEXT: A report is given on the electron emission from hot molybdenum, tungsten, and nickel foils when bombarded with He^+, Ne^+ and Ar^+ ions within the energy range 1 to 50 kev in a glass vacuum apparatus ($2 - 3 \cdot 10^{-7}$ mm Hg). It consisted of an ion source, a region in which the beam was formed by an electrostatic lens system and a measuring arrangement. The narrow ion beam was accelerated mainly by an electric field. Results: (1) in the energy range studied the coefficient γ of kinetic electron emission increases linearly with the ion velocity v_0; (2) at given ion velocity $\gamma_{Ar} > \gamma_{Ne} > \gamma_{He}$. (3) If the type of the bombarding ion is given, then $\gamma_{Mo} > \gamma_W > \gamma_{Ni}$. The linear dependence $\gamma(v_0)$ for Ar^+ and Ne^+ ions corresponds well with that

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Electron emission from metals when...

calculated by E. S. Parilis, L. M. Kishinevskiy (Fizika tverdogo tela, 3, 1219 (1961)) on the basis of the statistical theory of inelastic collisions. Since the experimental and the theoretical data for He^+ diverge greatly, statistical studies concerning ions with few electrons must be made more thoroughly. The differences in the γ-values obtained for Mo, W, and Ni are due to an effect of the work function on the excited-electron yield. The lack of proportionality between γ and the work function of the metal seems to be due to additional factors whose effects are not yet understood. There are 6 figures.

Card 2/2

ARIFOV, U.A.; RAKHIMOV, R.R.; KHOZINSKIY, O.V.

Electron emission induced by the bombardment of metals with certain ions of inert gases in the energy region not exceeding 50 kef.U. Izv.AN SSSR. Ser.fiz. 26 no.11:1398-1403 N '62. (MIRA 15:12)

(Electrons—Emission) (Ion beams)

KHOZINSKIY, V. I.

PA40T46

USSR/Medicine - Silkworms Aug 1946
Medicine - Immunity

"Nonspecific Immunity Acquired by the Mulberry Silkworm Bombyx Mori L.," V. I. Khozinskiy, Microbiological Dept, Central Asia Scientific Research Institute of Sericulture, Tashkent, 8 pp

"Mikrobiologiya" Vol XV, No 4

Nonspecificity of immunity acquired by the mulberry silkworm as result of its vaccination with a vaccine prepared from B. turkestanicum is established through experiments. Immunized caterpillars acquired a pronounced immunity to B. turkestanicum, B. subtilis, Proteus vulgaris and Flavobacterium. Injections of

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USSR/Medicine - Silkworms (Contd) Aug 1946

Carmine or China ink also lead to an enhanced resistance, obviously nonspecific, of the silkworms to B. turkestanicum. Degree of immunity is determined by physiological conditions of the worms, which in turn depends on ecological factors.

40T46

1. KHODUKIN, N.I. KHOZINSKIY, V.I. FINOGENOVA, Ye. V. KAMENSHTEYN, I.S.

2. USSR (600)

3. Hemorrhagic Fever - Uzbekistan

4. Examination of virus in hemorrhagic fever in Uzbekistan. Vop. kraev. pat. No. 2, 1952.

9. Monthly List of Russian Acessions, Library of Congress, February 1953, Unclassified.

9. Monthly List of Russian Acessions, Library of Congress, February 1953, Unclassified.

KHOZINSKIY, V. I.; GULAMOVA, V. P.; KHODUKIN, N. I.

"Experience in making cultures of the measles virus."

Report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists. 1959

KHOZINSKIY, V.I.; KARASEVA, I.A.; SVEZHININA, Yu.A.

Immunological effectiveness of live polyvalent poliomyelitis vaccine under conditions of an epidemic outbreak of poliomyelitis in Tashkent. Med. zhur. Uzb. no.3:51-56 Mr '61. (MIRA 14:5)

1. Iz Tashkentskogo nauchno-issledovatel'skogo instituta vaktsin i syvorotok (direktor - kand.biologicheskikh nauk A.B.Inogamov).
(POLIOMYELITIS)

KHOZINSKIY, V. I.; ZEYBIL, V. B.; TSYPKIN, L.B.; PANTELEYEV, N.S.; MAZUROVA, S.M.

"Utilization of a New Diploid Cell Strain Derived from Human Embryo Lung Tissue for the Cultivation of Enteroviruses and Measles-Virus."

Report presented at the Symposium on Biological Standardization, Opatija, Yugoslavia, 24-26 Sep 63.